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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/632,587	08/04/2000	Kiyomitsu Takizawa	122.1414	1898

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EXAMINER

KING, JUSTIN

ART UNIT	PAPER NUMBER
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2111

DATE MAILED: 02/11/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/632,587

Applicant(s)

TAKIZAWA ET AL.

Examiner

Justin I. King

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 and 10-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 10-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Objections

1. Claims 1, 4, and 10-11 are objected to because of the following informalities: Claim 1's 3rd limitation states "one set of input devices, including the keyboard...". These input devices have been defined in the preamble. Claims 4 and 10-11 are objected because they incorporate claim 1's limitations. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

3. Claims 15-16 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention because they depend on a canceled claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over KEEMUX KVM Switch by the Network Technology Inc. in view of Lee (U.S. Patent No. 5,935,254).

Referring to claim 1: The KEEMUX is a PC switching device installed between a keyboard and a plurality of personal computers; it connects to each computer individually and supports the SUN computer's operations, and the Sun computer features the power control via the keyboard stroke. Under KEEMUX's Normal Operating Mode, only the selected PC receives the keyboard signals; hence, the KEEMUX has a plurality of power control switches corresponding respectively to the plurality of personal computers.

The KEEMUX has a LED light for each connected computer; thus, it has the recognizing means for recognizing that some of the plurality of personal computers, which corresponds to at least one of the power control switches firstly pressed, is in a power-on state.

The KEEMUX's Normal Operating Mode is the selective inputting means for selectively inputting commands from one set of input devices to one of the plurality of personal computer.

The KEEMUX's Broadcast Mode the code transmitting means for transmitting codes assigned to the power control switches to certain ones of the personal computers and powering off the same when the certain ones of the Personal computers in the power-on state are

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selected-by the selective inputting means and the power control switches that correspond to the certain ones of the personal computers in the power-on state are pressed again.

The KEEMUX does not explicitly disclose that the attached keyboard is the one without a power control key.

Lee discloses that it is known to use keyboard or program to control the computer's power (abstract). Lee further discloses that it is known to employ a soft switch, which is any keyboard's key for controlling the computer power (column 1, lines 46-47) or to employ a specific keyboard key input for controlling the computer power (column 2, lines 6-7). In the soft switch scenario, since the keyboard does not have specific key for controlling the computer power, such keyboard is the one without the power control key.

Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt Lee's soft switch teaching onto KEEMUX because Lee teaches one to use the soft switch to avoid the circuit damage (column 1, lines 53-54).

Referring to claim 2: The KEEMUX is a PC switching device installed between a keyboard and a plurality of personal computers; it connects to each computer individually and supports the SUN computer's operations, and the Sun computer features the power control via the keyboard stroke. Under KEEMUX's Broadcast Mode is the claimed powering means, which can power all of the plurality of personal computers simultaneously by pressing the keyboard key when the plurality of personal computers are in a power-off state.

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The KEEMUX has a LED light for each connected computer; thus, it has the recognizing means for recognizing that some of the plurality of personal computers, which corresponds to at least one of the power control switches firstly pressed, is in a power-on state.

The KEEMUX's Normal Operating Mode is the selective inputting means for selectively inputting commands from one set of input devices to one of the plurality of personal computer.

The KEEMUX's Broadcast Mode the code transmitting means for transmitting codes assigned to the power control switches to certain ones of the personal computers and powering off the same when the certain ones of the Personal computers in the power-on state are selected-by the selective inputting means and the power control switches that correspond to the certain ones of the personal computers in the power-on state are pressed again.

The KEEMUX does not explicitly disclose that the attached keyboard is the one with a power control key.

Lee discloses that it is known to use keyboard or program to control the computer's power (abstract). Lee further discloses that it is known to employ a soft switch, which is any keyboard's key for controlling the computer power (column 1, lines 46-47) or to employ a specific keyboard key input for controlling the computer power (column 2, lines 6-7). In the specific keyboard input scenario, since not any key on the keyboard can control the computer power, such keyboard is the one with the power control key.

Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt Lee's power control key onto KEEMUX because Lee teaches one to use the power control key to avoid the user mistake (column 1, line 66).

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Referring to claim 3: The KEEMUX is a PC switching device installed between a keyboard and a plurality of personal computers; it connects to each computer individually and supports the SUN computer's operations, and the Sun computer features the power control via the keyboard stroke.

When KEEMUX powers on a connected computer under its Normal Operating Mode, it is the claimed powering means, which powers some of the plurality of personal computers previously selected by pressing the power control key on the keyboard when all of the plurality of personal computers are in a power-off state.

The KEEMUX has a LED light for each connected computer; thus, it has the recognizing means for recognizing that some of the plurality of personal computers, which corresponds to at least one of the power control switches firstly pressed, is in a power-on state.

The KEEMUX's Normal Operating Mode is the selective inputting means for selectively inputting commands from one set of input devices to one of the plurality of personal computer.

The KEEMUX's Broadcast Mode the code transmitting means for transmitting codes assigned to the power control switches to certain ones of the personal computers and powering off the same when the certain ones of the Personal computers in the power-on state are selected-by the selective inputting means and the power control switches that correspond to the certain ones of the personal computers in the power-on state are pressed again.

The KEEMUX does not explicitly disclose that the attached keyboard is the one with a power control key.

Lee discloses that it is known to use keyboard or program to control the computer's power (abstract). Lee further discloses that it is known to employ a soft switch, which is any

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keyboard's key for controlling the computer power (column 1, lines 46-47) or to employ a specific keyboard key input for controlling the computer power (column 2, lines 6-7). In the specific keyboard input scenario, since not any key on the keyboard can control the computer power, such keyboard is the one with the power control key.

Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt Lee's power control key onto KEEMUX because Lee teaches one to use the power control key to avoid the user mistake (column 1, line 66).

7. Claims 4-5 and 10-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of the KEEMUX, Lee, and Kwok (U.S. Patent No. 4,412,245).

Referring to claims 4 and 11: Claim 1's argument applies; furthermore, Lee discloses the transistor for controlling the connecting states (column 5, lines 9-11); however neither prior art explicitly discloses the comparator. The KEEMUX has the LED for indicating each attached host computer's power-on status, but KEEMUX does not explicitly disclose how to power its LED for indicating the connected host computer's power-on status. Kwok discloses a differential current detector and a way to power the LED. Kwok discloses that it is known to couple a comparator's output to a transistor to power the LED (column 7, lines 54-58). Kwok teaches a way to power the LED by comparing the voltage differences; thus, KEEMUX can compare the voltage of the power-on host computer and power the associated LED. Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt Lee and Kwok's teachings onto KEEMUX because Lee teaches one

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to use the soft switch to avoid the circuit damage and Kwok teaches one to utilize the voltage difference to power the indicative LED.

Referring to claims 5 and 13: Claim 2's argument applies; furthermore, Lee discloses the transistor for controlling the connecting states (column 5, lines 9-11); however neither prior art explicitly discloses the comparator. The KEEMUX has the LED for indicating each attached host computer's power-on status, but KEEMUX does not explicitly disclose how to power its LED for indicating the connected host computer's power-on status. Kwok discloses a differential current detector and a way to power the LED. Kwok discloses that it is known to couple a comparator's output to a transistor to power the LED (column 7, lines 54-58). Kwok teaches a way to power the LED by comparing the voltage differences; thus, KEEMUX can compare the voltage of the power-on host computer and power the associated LED. Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt Lee and Kwok's teachings onto KEEMUX because Lee teaches one to use the power control key to avoid the user mistake and Kwok teaches one to utilize the voltage difference to power the indicative LED.

Referring to claim 14: Claim 3's argument applies; furthermore, Lee discloses the transistor for controlling the connecting states (column 5, lines 9-11); however neither prior art explicitly discloses the comparator. The KEEMUX has the LED for indicating each attached host computer's power-on status, but KEEMUX does not explicitly disclose how to power its LED for indicating the connected host computer's power-on status. Kwok discloses a differential current detector and a way to power the LED. Kwok discloses that it is known to couple a comparator's output to a transistor to power the LED (column 7, lines 54-58). Kwok

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teaches a way to power the LED by comparing the voltage differences; thus, KEEMUX can compare the voltage of the power-on host computer and power the associated LED. Hence, it would have been obvious to one having ordinary skill in the computer art at the time Applicant made the invention to adapt Lee and Kwok's teachings onto KEEMUX because Lee teaches one to use the power control key to avoid the user mistake and Kwok teaches one to utilize the voltage difference to power the indicative LED.

Referring to claims 10 and 12: KEEMUX and Lee's disclosures are stated above; the keyboard is powered by the host computer, which provides the power for keyboard's indicative lights (Number Lock, Caps Lock, and Scroll Lock), and there is only one cable between the host computer and keyboard, such that the host computer's connecting port is the power supply terminal and the keyboard's connecting port is the power receiving terminal; and a voltage divider is at the host computer's power supply terminal to distribute the voltage to the keyboard; and the host computer's main power voltage is the first voltage divided by the voltage divider. Since the KEEMUX is between the host computer and keyboard, it receives the voltage from every connected host computer and distributes the voltage to the keyboard; and since it receives voltage from every host computer, the total combined voltage for keyboard will be higher than expected if there is more than one powered host computer; thus, the voltage will need to be divided by the number of the powered host computers.

Response to Amendment

8. In response to Applicant's argument that the prior art does not teach a power control means which will not transmit key codes when a corresponding port is not selected (Remark,

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page 9, paragraphs 2 and 4): KEEMUX does disclose the feature. KEEMUX's Normal Operating Mode only sends keystroke to the selected computer.

9. In response to Applicant's argument that the KEEMUX does not teach a power control means, which turns on multiple computer simultaneously and turns off only selected computer (Remark, page 10, paragraphs 2 and 4): KEEMUX does disclose the feature. KEEMUX's Broadcast Mode turns on multiple computers simultaneously and Normal Operating Mode only sends keystroke to the selected computer, which only turns off the selected one.

10. In response to Applicant's argument that the KEEMUX does not teach a power control means to turn on the pre-selected computer (Remark, page 11, paragraphs 2 and 4): KEEMUX's Normal Operating Mode selects particular computer to receive the keyboard key stroke, the computer selected by the Normal Operating Mode is the pre-selected computer.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

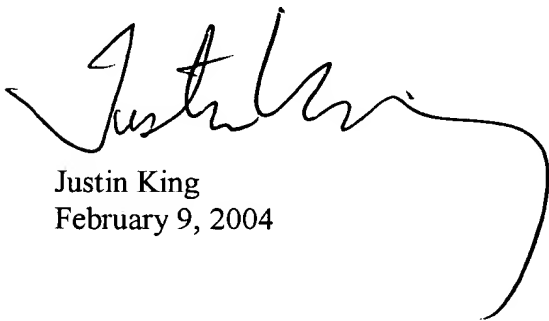
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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin King whose telephone number is (703) 305-4571. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephones are unsuccessfully, the examiner's supervisor, Mark Reinhart can be reached at (703) 308-3110.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose number is (703)-306-5631.



Justin King
February 9, 2004



XUAN M. THAI
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